

On October 21, 2021, the Dispute Resolution Agreement Team (EPA, TDEC, DOE and UCOR) agreed to a fish consumption rate of 11 fish meals/year using the process and calculations shown in this

BFK-7.6 Calculated Number of Fish Meals
Community BFK 7.6 (114 meter reach,
gamefish greater than 30 grams)

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)
bluegill	1	46	46	46
green sunfish	1	34.5	34.5	34.5
largemouth bass	0	0	0	NA
redbreast sunfish	5	35	86.7	59.4
rock bass	3	44	185	91.4

Total weight of fish greater than 30 grams	651.6 grams
Assume 1/2 of fish is edible	325.8 grams/filet
Fish catch rate per trip	70% fish/trip
Assume fishes 9 months, for a total of 30 trips	6841.8 grams/year
Assume 227 g per meal	30.14 meals/year

EFK 0.0 (0.0-1.0) Calculated Number of Fish Meals
Community EFK 0.0 (65 meter reach,
gamefish greater than 30 grams)

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)
largemouth bass	1	66.2	66.2	66.2
white crappie	1	183	183	183
bluegill	5	30.3	80	46.9
redbreast sunfish	1	112	112	112
redeer sunfish	1	36.6	36.6	36.6
warmouth	3	36.3	43.8	39.3
yellow bass	11	30.4	196	87.6
yellow perch	2	32.6	32.9	32.8

Total weight of fish greater than 30 grams	1779.6 grams
Assume 1/2 of fish is edible	889.8 grams/filet
Fish catch rate per trip	28% fish/trip
Assume fishes 9 months, for a total of 30 trips	7474.32 grams/year
Assume 227 g per meal	32.93 meals/year

EPA Comments

Not considered in calculation of average fish catch for Bear Creek since it does not represent catch success in Bear Creek

BCK 0.5 (0.5-1.5) Calculated Number of Fish Meals

**Community BCK 0.5 (95 meter reach,
gamefish greater than 30 grams)**

Common Name	Number of Fish	Minimum Weight	Maximum Weight	Average Weight
largemouth bass	1	73.1	73.1	73.1
green sunfish	3	33.2	72.1	46.5
redbreast sunfish	3	32.8	59	41.8
rock bass	4	36.7	116	77.5
warmouth	1	34.4	34.4	34.4

Total weight of fish greater than 30 grams

682.4 grams

Assume 1/2 of fish is edible

341.2 grams/filet

Fish catch rate per trip

58% fish/trip

Assume fishes 9 months, for a total of 30 trips

4401.48 grams/year

Assume 227 g per meal

19.39 meals/year

BCK 3.3 (3.3-4.5) Calculated Number of Fish Meals

**Community BCK 3.3 (84 meter reach,
gamefish greater than 30 grams) + 5-year BMAP fish data**

Common Name	Number of Fish	Minimum Weight	Maximum Weight	Average Weight
bluegill	2	32.7	72.5	52.6
green sunfish	9	35	55.1	39.2
redbreast sunfish	4	32.5	69	42.9
rock bass	12	34.9	176	69.9

Total weight of fish greater than 30 grams

99.2 grams

Assume 1/2 of fish is edible

49.6 grams/filet

Fish catch rate per trip

26% fish/trip

Assume fishes 9 months, for a total of 30 trips

639.84 grams/year

Assume 227 g per meal

2.82 meals/year

Average BCK Fish Meals/Year (BCK 0.7 and 3.3)	11
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Incorporates fish counts & species based on last 5 years of BMAP data + 1 green sunfish from 2021 Spring Sampling Event

Based on 95% Percentile. See "Fish Tissue Weights" worksheet for details

Average fish catch rate for Bear Creek is 43%.

Factors the mean fish catch rate for BCK 0.7 and BCK 3.3 only (i.e., 43%)

Represents the average fish meals/year for Bear Creek (BCK 0.7 and BCK 3.3)

DATE	SITE	PASS	SPECIES	Season	Common Name	LEN	WGT	Type
4/6/2016	BCK3.3	1	REDBRE	Spring 2016	redbreast sunfish	15.8	69	sunfish, game fish
4/6/2016	BCK3.3	1	ROCKBA	Spring 2016	rock bass	12.7	34.9	sunfish, game fish
10/11/2016	BCK3.3	2	ROCKBA	Fall 2016	rock bass	18.9	110	sunfish, game fish
10/11/2016	BCK3.3	1	ROCKBA	Fall 2016	rock bass	16.6	74	sunfish, game fish
10/11/2016	BCK3.3	1	ROCKBA	Fall 2016	rock bass	16.5	72	sunfish, game fish
10/11/2016	BCK3.3	1	ROCKBA	Fall 2016	rock bass	17	70	sunfish, game fish
10/11/2016	BCK3.3	1	REDBRE	Fall 2016	redbreast sunfish	14.1	36	sunfish, game fish
5/1/2017	BCK3.3	1	ROCKBA	Spring 2017	rock bass	20.6	176	sunfish, game fish
5/1/2017	BCK3.3	1	ROCKBA	Spring 2017	rock bass	14.7	57.1	sunfish, game fish
5/1/2017	BCK3.3	1	ROCKBA	Spring 2017	rock bass	14.9	57	sunfish, game fish
5/1/2017	BCK3.3	3	ROCKBA	Spring 2017	rock bass	14	47.3	sunfish, game fish
5/1/2017	BCK3.3	1	ROCKBA	Spring 2017	rock bass	12.6	38.7	sunfish, game fish
5/1/2017	BCK3.3	3	GREENS	Spring 2017	green sunfish	12.9	35.5	sunfish, game fish
5/1/2017	BCK3.3	1	GREENS	Spring 2017	green sunfish	12.9	35	sunfish, game fish
10/4/2017	BCK3.3	1	ROCKBA	Fall 2017	rock bass	16	58.9	sunfish, game fish
4/13/2018	BCK3.3	2	GREENS	Spring 2018	green sunfish	12.9	39.7	sunfish, game fish
4/13/2018	BCK3.3	2	GREENS	Spring 2018	green sunfish	13.1	36.4	sunfish, game fish
10/3/2019	BCK3.3	1	BLUGIL	Fall 2019	bluegill	15.6	72.5	sunfish, game fish
10/3/2019	BCK3.3	3	GREENS	Fall 2019	green sunfish	13.9	41.5	sunfish, game fish
10/3/2019	BCK3.3	2	GREENS	Fall 2019	green sunfish	12.8	35.1	sunfish, game fish
10/3/2019	BCK3.3	2	REDBRE	Fall 2019	redbreast sunfish	12.8	32.5	sunfish, game fish
5/12/2020	BCK3.3	1	GREENS	Spring 2020	green sunfish	13.4	36	sunfish, game fish
5/12/2020	BCK3.3	1	REDBRE	Spring 2020	redbreast sunfish	12.7	34	sunfish, game fish
10/7/2020	BCK3.3	1	GREENS	Fall 2020	green sunfish	14.9	55.1	sunfish, game fish
10/7/2020	BCK3.3	2	ROCKBA	Fall 2020	rock bass	14.2	42.9	sunfish, game fish
10/7/2020	BCK3.3	1	BLUGIL	Fall 2020	bluegill	12.8	32.7	sunfish, game fish
5/1/2021	BCK 3.3	1	GREENS	Spring 2021	green sunfish	11.7	38.1	sunfish, game

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
redbreast sunfish	1	69	69	69.0	69.0	15.8
rock bass	1	34.9	34.9	34.9	34.9	12.7
Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
redbreast sunfish	2	36	69	52.5	105.0	14.1
rock bass	5	34.9	110	72.2	360.9	12.7

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	2	35	35.5	35.3	70.5	12.9
rock bass	5	38.7	176	75.2	376.1	12.6

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
rock bass	1	58.9	58.9	58.9	58.9	16
Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	2	36.4	39.7	38.1	76.1	12.9

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	2	35.1	41.5	38.3	76.6	12.8
redbreast sunfish	1	32.5	32.5	32.5	32.5	12.8
bluegill	1	72.5	72.5	72.5	72.5	15.6

Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	1	36	36	36.0	36.0	13.4
redbreast sunfish	1	34	34	34.0	34.0	12.7
Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	1	55.1	55.1	55.1	55.1	14.9
rock bass	1	42.9	42.9	42.9	42.9	14.2
bluegill	1	32.7	32.7	32.7	32.7	12.8

Spring 2021 Community Survey						
Common Name	Number of Fish	Minimum Weight (grams)	Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)
green sunfish	1	38.1	38.1	38.1	38.1	13

Maximum Length (cm)	Average Length (cm)
15.8	15.8
12.7	12.7
Maximum Length (cm)	Average Length (cm)
15.8	15.0
18.9	16.3

Maximum Length (cm)	Average Length (cm)
12.9	12.9
20.6	15.4

Maximum Length (cm)	Average Length (cm)
16	16.0
Maximum Length (cm)	Average Length (cm)
13.1	13.0

Maximum Length (cm)	Average Length (cm)
13.9	13.4
12.8	12.8
15.6	15.6

Maximum Length (cm)	Average Length (cm)
13.4	13.4
12.7	12.7
Maximum Length (cm)	Average Length (cm)
14.9	14.9
14.2	14.2
12.8	12.8

Maximum Length (cm)	Average Length (cm)
13	13.0

DATE	SITE	PASS	SPECIES
4/6/2016	BCK3.3	1	REDBRE
4/6/2016	BCK3.3	1	ROCKBA
10/11/2016	BCK3.3	1	REDBRE
10/11/2016	BCK3.3	2	ROCKBA
10/11/2016	BCK3.3	1	ROCKBA
10/11/2016	BCK3.3	1	ROCKBA
10/11/2016	BCK3.3	1	ROCKBA
5/1/2017	BCK3.3	3	GREENS
5/1/2017	BCK3.3	1	GREENS
5/1/2017	BCK3.3	1	ROCKBA
5/1/2017	BCK3.3	1	ROCKBA
5/1/2017	BCK3.3	1	ROCKBA
5/1/2017	BCK3.3	3	ROCKBA
5/1/2017	BCK3.3	1	ROCKBA
10/4/2017	BCK3.3	1	ROCKBA
4/13/2018	BCK3.3	2	GREENS
4/13/2018	BCK3.3	2	GREENS
10/3/2019	BCK3.3	1	BLUGIL
10/3/2019	BCK3.3	3	GREENS
10/3/2019	BCK3.3	2	GREENS
10/3/2019	BCK3.3	2	REDBRE
5/12/2020	BCK3.3	1	GREENS
5/12/2020	BCK3.3	1	REDBRE
10/7/2020	BCK3.3	1	BLUGIL
10/7/2020	BCK3.3	1	GREENS
10/7/2020	BCK3.3	2	ROCKBA
5/1/2021	BCK 3.3	1	GREENS

Season	Common Name	Count	LEN	WGT	Type
2016 Spring	redbreast sunfish	1	15.8	69	sunfish, game fish
2016 Spring	rock bass	2	12.7	34.9	sunfish, game fish
2016 Fall	redbreast sunfish	1	14.1	36	sunfish, game fish
2016 Fall	rock bass	2	18.9	110	sunfish, game fish
2016 Fall	rock bass	3	16.6	74	sunfish, game fish
2016 Fall	rock bass	4	16.5	72	sunfish, game fish
2016 Fall	rock bass	5	17	70	sunfish, game fish
2017 Spring	green sunfish	1	12.9	35.5	sunfish, game fish
2017 Spring	green sunfish	2	12.9	35	sunfish, game fish
2017 Spring	rock bass	1	20.6	176	sunfish, game fish
2017 Spring	rock bass	2	14.7	57.1	sunfish, game fish
2017 Spring	rock bass	3	14.9	57	sunfish, game fish
2017 Spring	rock bass	4	14	47.3	sunfish, game fish
2017 Spring	rock bass	5	12.6	38.7	sunfish, game fish
2017 Fall	rock bass	6	16	58.9	sunfish, game fish
2018 Spring	green sunfish	1	12.9	39.7	sunfish, game fish
2018 Spring	green sunfish	2	13.1	36.4	sunfish, game fish
2019 Fall	bluegill	1	15.6	72.5	sunfish, game fish
2019 Fall	green sunfish	1	13.9	41.5	sunfish, game fish
2019 Fall	green sunfish	2	12.8	35.1	sunfish, game fish
2019 Fall	redbreast sunfish	1	12.8	32.5	sunfish, game fish
2020 Spring	green sunfish	1	13.4	36	sunfish, game fish
2020 Spring	redbreast sunfish	1	12.7	34	sunfish, game fish
2020 Fall	bluegill	1	12.8	32.7	sunfish, game fish
2020 Fall	green sunfish	1	14.9	55.1	sunfish, game fish
2020 Fall	rock bass	1	14.2	42.9	sunfish, game fish
Spring 2021	green sunfish	1	11.7	38.1	sunfish, game

SPECIES	Number of Fish	Minimum Weight (grams)
BLUGIL	2	32.7
GREENS	9	35
REDBRE	4	32.5
ROCKBA	12	34.9
	27	

All fish

90th Percentile weight

73.1

Fish > 30 grams 2016

90th Percentile Count

4.7

Fish > 30 grams 2018

90th Percentile Count

1.9

Maximum Weight (grams)	Average Weight (grams)	Total Weight (grams)	Minimum Length (cm)	Maximum Length (cm)	Average Length (cm)
72.5	52.6	105.2	32.7	72.5	52.6
55.1	39.2	352.4	35	55.1	39.2
69	42.9	171.5	32.5	69	42.9
176	69.9	838.8	34.9	176	69.9
		1467.9			

5th Percentile weigh

99.2

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5th Percentile Coun
5

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5th Percentile Coun
2